

Applicant: Marinus Gerardus Johannus Van Beuningen  
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#### REMARKS

Claims 1-10 were pending in the subject application. Claim 10 has been withdrawn from consideration by the Examiner as directed to non-elected subject matter. By this amendment, Claims 1-8 have been amended, and new Claim 11 has been added. Support for the amendment to Claim 1 can be found at least in Claim 4 and in the application as filed in the bottom paragraph on page 7 and the first paragraph on page 8. Support for new Claim 11 can be found in the application as filed at least on page 6, bottom paragraph, and page 11, first paragraph. Support for the remaining claim amendments can be found at least in the previous version of the claims.

The specification has been amended to identify trademarks.

Applicant maintains that the amendments to the claims and to the specification do not raise an issue of new matter. Entry of the amendments is respectfully requested.

#### Objection to the Specification

The Examiner objected to the specification for lacking an appropriate indication for trademarks Sylgard 182, Cy5, Cy3, etc. The specification has herein above been amended to identify trademarks. Accordingly, reconsideration and withdrawal of this objection are respectfully requested.

#### Rejections under 35 U.S.C. §112, Second Paragraph

Claims 2-5 and 7-8 are rejected for lacking antecedent basis for "said support member" and "the support member." Claims 2-5 and 7-8 have herein above been amended to recite "said flow through support member" as recommended by the Examiner thereby obviating this rejection.

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Rejections under 35 U.S.C. §102

Claims 1 to 4 and 6 to 8 are rejected under 35 U.S.C. §102(b) as being anticipated by Stimpson (U.S. Patent No. 6,306,664).

Claims 1 to 5 and 7 and 8 are rejected under 35 U.S.C. §102(b) as being anticipated by Raybuck *et al.* (U.S. Patent No. 5,556,598).

Claims 1, 3 and 7 to 9 are rejected under 35 U.S.C. §102(b) as being anticipated by Felds (U.S. Patent Application Publication No. US 2003/0027203).

These rejections are respectfully traversed.

US 6,306,664 indicates that for the application of protein or nucleic acid compounds, the porous matrix should be a microporous membrane such as cellulose, nitrocellulose, polysulfone, nylon, polypropylene or glass. In particular, nitrocellulose is preferred for protein components while nylon is preferred for immobilization of nucleic acid compounds. The US patent therefore provides that the microporous membrane should be made out of organic polymers. US 6,306,664 therefore does not mention the use of metals, ceramic metal oxides, silicon and/or metal oxides (and preferably aluminium oxide) as a porous substrate as required by amended Claim 1.

With regard to US 5,556,598, applicant maintains that this US patent discloses membranes that are preferably porous and preferably a woven or non-woven mesh of fibers, which term is used to include threads and filaments which may be discrete or continuous. Further the membrane may incorporate a specific binding partner of the component to be bound and the membrane may be of a material which is able to bind DNA, e.g., charged or uncharged polymer surface. In view thereof applicant maintains that US 5,556,598 does not disclose a flow through support member having through going channels and therefore US 5,556,598 does not anticipate the subject matter as claimed in the present invention. It should be stressed that a mesh of fibers does not constitute through-going channels. Furthermore, applicant maintains that this US patent

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indicates that the membrane is a material capable of binding DNA, including materials such as polyester, polyamide, polycarbonate, cellulose, nitrocellulose, polyvinylidene difluoride, and glass. This US patent therefore provides that the microporous membrane should be made out of organic polymers.

With regard to US 2003/0027203, Claim 1 has been amended to include subject matter from original claim 4, which was not included in this rejection, thereby obviating the rejections with respect to US 2003/0027203.

Reconsideration and withdrawal of these rejections are respectfully requested.

Furthermore, with respect to new claim 11, applicant wishes to stress that none of the documents cited by the Examiner disclose the pore dimensions of the flow through support member. US 6,306,664 does not provide any information regarding the pore size of the porous materials. It is further applicant's opinion that typical pore sizes for nylon and nitrocellulose membranes have a lower limit of about 450 nm. US 6,306,664 does mention the use of microporous glass. It is mentioned that this type of glass is available in a wide range of pore sizes from 0.008 micron up to 5 micron. However, the US patent mentions in column 10 (lines 51 to 55) that: "While this material (referring to microporous glass) would be most suitable for DNA synthesis, clearly, the brittle nature of the porous glass sheet would not be compatible with the spiral bundle and the rod bundle would be required." Applicant also notes that the dimensions of the pores of the porous materials used in US 5,556,598 have a lower limit of 450 nm.

#### Rejections under 35 U.S.C. §103(a)

Claims 1 and 4-6 are rejected as being unpatentable over Stimpson (U.S. Patent No. 6,306,664) in view of van Damme et al. (U.S. Patent No. 6,225,131).

Claims 1-2 and 9 are rejected as being unpatentable over Felds (U.S. Patent

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Application Publication No. US 2003/0027203) in view of Stimpson (U.S. Patent No. 6,306,664).

Claims 1 and 4-6 are rejected as being unpatentable over Raybuck *et al.* (U.S. Patent No. 5,556,598) in view of van Damme *et al.* (U.S. Patent No. 6,225,131).

Claim 9 is rejected as being unpatentable over Felds (U.S. Patent Application Publication No. US 2003/0027203) in view of Raybuck *et al.* (U.S. Patent No. 5,556,598).

Claims 1 and 4-6 are rejected as being unpatentable over Felds (U.S. Patent Application Publication No. US 2003/0027203) in view of van Damme *et al.* (U.S. Patent No. 6,225,131).

Reconsideration and withdrawal of these rejections are respectfully requested in view of the amendments and remarks made herein above.

#### Provisional Obviousness-type Double Patenting Rejection

Applicant acknowledges the provisional obviousness-type double patenting rejection of Claims 1-4 and 6-8 over Claims 51-53 of copending U.S. Patent Application No. 11/662,397 in view of Stimpson (U.S. Patent No. 6,306,664).

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CONCLUSIONS

In view of the preceding amendments and remarks, applicant respectfully requests that the Examiner reconsider and withdraw the objection and rejections in the February 19, 2009 Office Action, and earnestly solicit allowance of the pending claims. If there is any minor matter preventing the allowance of the subject application, the Examiner is requested to telephone the undersigned attorney.

No fee is deemed necessary in connection with the submission of this Amendment. However, if any fee is required to maintain the pendency of the subject application, authorization is hereby given to withdraw the amount of any such fee from Deposit Account No. 01-1785.

Respectfully submitted,

AMSTER, ROTHSTEIN & EBENSTEIN LLP  
Attorneys for Applicant  
New York, New York 10016  
(212) 336 8000

Dated: May 19, 2009  
New York, New York

By   
Alan D. Miller, Reg. No. 42,889